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**(Proposed – Not Final)**

**Title:** Protocol for Sampling and Analysis of Finished Medical Marijuana Products and Marijuana-Infused Products for Massachusetts Registered Medical Marijuana Dispensaries

**Exhibit 5.**  
**Minimum Analysis Requirements for Residues of Pesticides and Plant Growth Regulators Commonly Used in Cannabis Cultivation**

Pesticide	Use	Residue Analytical Methods
Abamectin (Avermectins B1a and B1b)	Insecticide/acaricide	LC-FLD; LC-MS/MS
Acequinocyl	Insecticide/acaricide	LC/MS/MS
Bifenazate	Acaricide	LC; LC-MS/MS
Bifenthrin (synthetic pyrethroid)	Insecticide	GC-ECD; GC-MS/MS
Chlormequat chloride	Plant growth regulator	IC, LC-MS/MS
Cyfluthrin (synthetic pyrethroid)	Insecticide	LC; GC-MS/MS
Daminozide (Alar)	Plant growth regulator	UV spectroscopy; LC-MS/MS
Etoxazole	Acaricide	GC-MS/(MS)
Fenoxycarb	Insecticide	LC/UV; LC-MS/MS
Imazalil	Fungicide	GC-ECD; LC-MS/MS
Imidacloprid	Insecticide	LC-MS/MS
Myclobutanil	Fungicide	GC-ECD; GC-NPD; GSMS/MS; LC-MS/MS
Paclobutrazol	Plant growth regulator; fungicide	LC-MS/MS
Pyrethrins	Insecticide	GC-ECD
Spinosad	Insecticide	LC-MS/MS; Immunoassay
Spiromesifen	Insecticide	GC-MS; LC-MS/MS
Spirotetramat	Insecticide	LC/LC-MS/MS
Trifloxystrobin	Fungicide	GC-NPD; GC-MS/MS; LC-MS/MS

Source AHP (2013)

ECD = Electron capture detector; FLD = Fluorescence detector; GC = Gas chromatography; MS = Mass spectrometry; NPD = Nitrogen phosphorous detector; LC = Liquid chromatography